PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF THE REMAINING NEW TRAFFIC CONTROL SIGNAL EQUIPMENT AT THE MD 175 AND DOBBIN ROAD INTERSECTION IN HOWARD COUNTY. MD175 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION IS TO CONTINUE TO OPERATE IN A NEMA SIX PHASE, FULLY-TRAFFIC-ACTUATED MODE WITH ONE MODIFICATION: THE ADDITION OF AN ACTUATED PEDESTRIAN MOVEMENT WITH THE DOBBIN ROAD NORTHBOUND, SIDE ROAD SPLIT, MOVEMENT.

CONTROL REQUIREMENTS

THE EXISTING CONROLLER AND CABINET ARE TO BE UTILIZED.

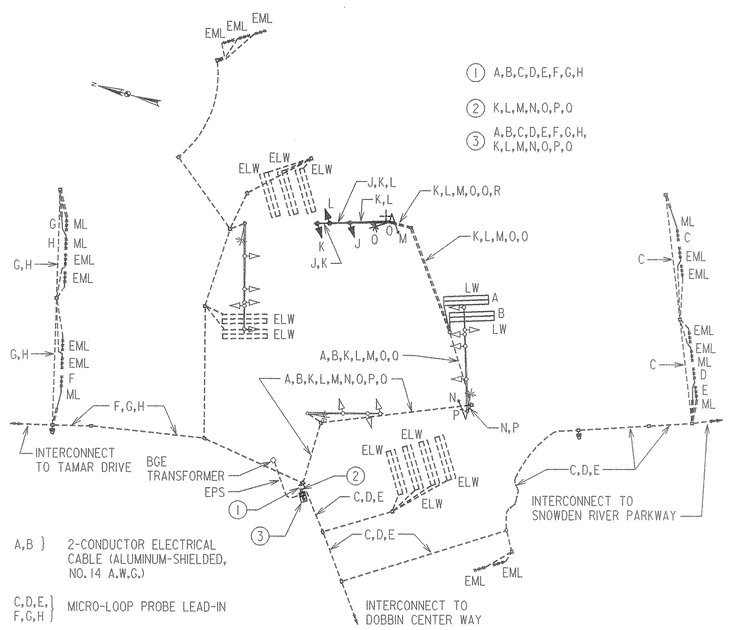
SPECIAL NOTE

THE EXISTING SIGNAL INTERCONNECT IS TO BE MAINTAINED. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF SIGNAL INTERCONNECT PLAN TO THE ENGINEER AND THE OFFICE OF TRAFFIC AND SAFETY FOR THEIR APPROVAL PRIOR TO ANY WORK COMMENCING WITH THE SIGNAL OR INTERCONNECT. LISTED BELOW ARE THE CURRENT OFFICE OF TRAFFIC AND SAFETY PERSONNEL.

ALL FIELD WIRING TO THE EXISTING CONTROLLER CABINET SHALL TERMINATED AT THE APPROPRIATE CONTROLLER CABINET CONNECTORS, PLUS FIFTEEN FEET OF COILED CABLE, BY THE CONTRACTOR AND LABELLED. ALL OTHER CONTROLLER CABINET WIRING WILL BE PERFORMED BY THE S.H.A. SIGNAL SHOP. CONTACT MR. ROBERT SNYDER AT 410-787-7631 SEVENTY-TWO HOURS IN ADVANCE OF THE INTENDED WORK.

72 HOURS PRIOR TO ANY WORK ON THE TRAFFIC SIGNAL, THE CONTRACTOR SHALL NOTIFY THE DISTRICT 7 TRAFFIC SECTION REPRESENTATIVE, MR GEORGE MILLER (1-800-635-5119), THE SIGNAL OPERATIONS SUPERVISOR, MR. EDWARD RODENHIZER (410-787-7652) AND THE SIGNAL SYSTEMS REPRESENTATIVE, MR. WOODROW HOOD III (410-787-5878).

WIRING DIAGRAM



A,B }	2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM-SHIELDED, NO. 14 A.W.G.)		
C,D,E, F,G,H }	MICRO-LOOP PROBE LEAD-IN		
J }	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	ELW	- EXISTING LOOPWIRE
K,L }	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	EML	- EXISTING MICRO-LOOP PROBE SET
M,N }	3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	EPS	- EXISTING POWER SOURCE
O,P }	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	LW	- LOOPWIRE
O }	2-CONDUCTOR ELECTRICAL CABLE, TYPE T/C (NO. 12 A.W.G.)	ML	- MICRO-LOOP PROBE SET
R }	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)		GROUND ROD, 3/4 IN. X 10 FT.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION:

CATEGORY CODE NO.	SPEC. SECTION	QUANTITY	DESCRIPTION
960035	814	1 EA.	12 IN. 1 WAY 3 SECTION (R,Y,G) ADJUSTABLE POLYCARBONATE SIGNAL HEAD WITH MAST ARM MOUNTING HARDWARE AND TUNNEL VISORS
960039	814	2 EA.	12 IN. 1 WAY 4 SECTION (R,Y,G,GA) ADJUSTABLE POLYCARBONATE SIGNAL HEAD WITH MAST ARM MOUNTING HARDWARE AND TUNNEL VISORS
960068	814	2 EA.	12 IN. 1 WAY 2 SECTION PEDESTRIAN SIGNAL HEAD - POLE-MOUNT
965001	817	2 EA.	PUSHBUTTON AND SIGN
973023	813	30 S.F.	SHEET ALUMINUM SIGNS - 2 EACH R3-5(L) (30" X 36") - MAST ARM-MOUNT - 1 EACH W9-2L MOD (60" X 36") - MAST ARM-MOUNT

PHASE DIAGRAM

PHASE 1 + 5	G	G	G	R	R	G	G	G	R	R	R	R	R	R	R	R	DW	DW		
1 + 5 CHANGE TO PHASE 1 + 6, PHSE 2 + 5 OR PHASE 2 + 6																				
PHASE 1 + 6	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW		
1 CHANGE	Y	Y	Y	G	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW		
PHASE 2 + 5	R	R	R	R	R	G	G	G	G	G	R	R	R	R	R	R	DW	DW		
5 CHANGE	R	R	R	R	R	Y	Y	Y	G	G	R	R	R	R	R	R	DW	DW		
PHASE 2 + 6	R	R	R	G	G	R	R	R	G	G	R	R	R	R	R	R	DW	DW		
2 + 6 CHANGE	R	R	R	Y	Y	R	R	R	Y	Y	R	R	R	R	R	R	DW	DW		
PHASE 3	R	R	R	R	R	R	R	R	R	R	G/G	G/G	G	R	R	R	DW	DW		
3 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW		
PHASE 3 ALT	R	R	R	R	R	R	R	R	R	R	G/G	G/G	G	R	R	R	WK	WK		
PED CLEAR	R	R	R	R	R	R	R	R	R	R	G/G	G/G	G	R	R	R	F/DW	F/DW		
ALT 3 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW		
PHASE 4	R	R	R	R	R	R	R	R	R	R	R	R	R	G/G	G/G	G	DW	DW		
4 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW		
FLASHING OPERATION	F/R	F/R	F/R	F/Y	F/Y	F/R	F/R	F/R	F/Y	F/Y	F/R	F/R	F/R	F/R	F/R	F/R	DARK	DARK		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	SPEC. SECTION	QUANTITY	DESCRIPTION
203030	205	1 C.Y.	TEST PIT EXCAVATION
585443	XXX	750 L.F.	12 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
585445	XXX	220 L.F.	24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
801004	801	4.7 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
802501	810	20 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805011	805	45 L.F.	FURNISH AND INSTALL 1 IN. ELECTRICAL CONDUIT - GALVANIZED SLEEVE
805125	805	15 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED
805155	805	75 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
811001	811	1 EA.	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	813	30 S.F.	INSTALL OVERHEAD SIGN
822500	XXX	1 EA.	AS-BUILT FOR TRAFFIC SIGNAL
837001	804	1 EA.	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
860035	814	1 EA.	INSTALL 12 IN. 1 WAY 3 SECTION (R,Y,G) POLYCARBONATE SIGNAL HEAD - MAST ARM MOUNT
860039	814	2 EA.	INSTALL 12 IN 1 WAY 4 SECTION (R,Y,G,GA) POLYCARBONATE SIGNAL HEAD - MAST ARM MOUNT
860068	814	2 EA.	INSTALL 12 IN 1 WAY 2 SECTION PEDESTRIAN SIGNAL HEAD - POLE MOUNT
861105	810	785 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)
861106	810	785 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 A.W.G.)
861107	810	35 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
861108	810	845 L.F.	FURNISH AND INSTALL ELECTRCIAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
861116	810	385 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
862101	810	845 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
862102	815	380 L.F.	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR))
865201	817	2 EA.	INSTALL PUSHBUTTON AND SIGN.
866101	818	1 EA.	FURNISH AND INSTALL 10 FT. LIGHTING ARM ON SIGNAL STRUCTURE
800000	806	1 EA.	FURNISH AND INSTALL 250-WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE WITH PHOTO CELL
800000	810	6 EA.	FURNISH AND INSTALL MICRO LOOP PROBE SET WITH 1000 FT. LEAD-IN.
800000	818	1 EA.	FURNISH AND INSTALL 27' STEEL MAST ARM POLE AND SINGLE 50' MAST ARM (PAINTED BROWN)
800000	XXX	LUMP SUM	REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

ULTIMATE SIGNAL | 5 OF 5

THE WILSON T. BALLARD CO.
CONSULTING ENGINEERS
OWINGS MILLS, MARYLAND

REVISIONS

10-25-85 ADDENDUM TO H0-581-501-771 LOCATION OF CONTROLLER CHANGED TO SW QUAD FROM SE ISLAND (C)

(D) 3-97 ADDITION OF EB MD 175 LOOP DETECTOR FOR NEW LEFT TURN LANE AND HANDHOLE RELOCATION

(E) 6-97 - WTB - H0764517O RECONSTRUCT SIGNAL TO NEW GEOMETRICS

JDM

APPROVALS

ASST. DIVISION CHIEF, TEDD

ASST. DISTRICT ENGINEER, TRAFFIC

CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR, OFFICE OF TRAFFIC & SAFETY

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

MD 175 AND DOBBIN ROAD

LOG MILE NO. 13017504.18 DATE 3/16/76

DRAWN BY:	J.G. & D. ZAFRIS	F.A.P. NO.	SEE TITLE SHEET	PLAN SHEET NO.:	SHEET NO.
CHECK BY:	N/A	S.H.A. NO.	H0-400-501-785	TS-1396E-GI-2	29 OF 46
SCALE:	NONE	COUNTY	HOWARD		